

PATENT COOPERATION TREATY
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INTERNATIONAL PRELIMINARY EXAMINATION REPORT

(PCT Article 36 and Rule 70)

Applicant's or agent's file reference 3P147:RC:LS	FOR FURTHER ACTION	See Notification of Transmittal of International Preliminary Examination Report (Form PCT/IPEA/416).
International Application No. PCT/AU2003/001703	International Filing Date (day/month/year) 19 December 2003	Priority Date (day/month/year) 19 December 2002
International Patent Classification (IPC) or national classification and IPC Int. Cl. ⁷ B65H 20/06, 20/18, B23K 26/14		
Applicant MODRA, Christopher, Max		

1. This international preliminary examination report has been prepared by this International Preliminary Examining Authority and is transmitted to the applicant according to Article 36.

2. This REPORT consists of a total of 4 sheets, including this cover sheet.

☐ This report is also accompanied by ANNEXES, i.e., sheets of the description, claims and/or drawings which have been amended and are the basis for this report and/or sheets containing rectifications made before this Authority (see Rule 70.16 and Section 607 of the Administrative Instructions under the PCT).

These annexes consist of a total of sheet(s).

3. This report contains indications relating to the following items:

- | | | |
|------|-------------------------------------|---|
| I | <input checked="" type="checkbox"/> | Basis of the report |
| II | <input type="checkbox"/> | Priority |
| III | <input type="checkbox"/> | Non-establishment of opinion with regard to novelty, inventive step and industrial applicability |
| IV | <input type="checkbox"/> | Lack of unity of invention |
| V | <input checked="" type="checkbox"/> | Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement |
| VI | <input type="checkbox"/> | Certain documents cited |
| VII | <input type="checkbox"/> | Certain defects in the international application |
| VIII | <input type="checkbox"/> | Certain observations on the international application |

Date of submission of the demand 16 July 2004	Date of completion of the report 2 May 2005
Name and mailing address of the IPEA/AU AUSTRALIAN PATENT OFFICE PO BOX 200, WODEN ACT 2606, AUSTRALIA E-mail address: pct@ipaaustralia.gov.au Facsimile No. (02) 6285 3929	Authorized Officer N. STOJADINOVIC Telephone No. (02) 6283 2124

Basis of the report

With regard to the elements of the international application:*

- ☒ the international application as originally filed.
- ☐ the description, pages , as originally filed,
 pages , filed with the demand,
 pages , received on with the letter of
- ☐ the claims, pages , as originally filed,
 pages , as amended (together with any statement) under Article 19,
 pages , filed with the demand,
 pages , received on with the letter of
- ☐ the drawings, pages , as originally filed,
 pages , filed with the demand,
 pages , received on with the letter of
- ☐ the sequence listing part of the description:
 pages , as originally filed
 pages , filed with the demand
 pages , received on with the letter of

2. With regard to the language, all the elements marked above were available or furnished to this Authority in the language in which the international application was filed, unless otherwise indicated under this item.

These elements were available or furnished to this Authority in the following language which is:

- ☐ the language of a translation furnished for the purposes of international search (under Rule 23.1(b)).
- ☐ the language of publication of the international application (under Rule 48.3(b)).
- ☐ the language of the translation furnished for the purposes of international preliminary examination (under Rules 55.2 and/or 55.3).

3. With regard to any nucleotide and/or amino acid sequence disclosed in the international application, the international preliminary examination was carried out on the basis of the sequence listing:

- ☐ contained in the international application in written form.
- ☐ filed together with the international application in computer readable form.
- ☐ furnished subsequently to this Authority in written form.
- ☐ furnished subsequently to this Authority in computer readable form.
- ☐ The statement that the subsequently furnished written sequence listing does not go beyond the disclosure in the international application as filed has been furnished.
- ☐ The statement that the information recorded in computer readable form is identical to the written sequence listing has been furnished

4. ☐ The amendments have resulted in the cancellation of:

- ☐ the description, pages
- ☐ the claims, Nos. .
- ☐ the drawings, sheets/fig.

5. ☐ This report has been established as if (some of) the amendments had not been made, since they have been considered to go beyond the disclosure as filed, as indicated in the Supplemental Box (Rule 70.2(c)).**

* Replacement sheets which have been furnished to the receiving Office in response to an invitation under Article 14 are referred to in this report as "originally filed" and are not annexed to this report since they do not contain amendments (Rules 70.16 and 70.17).

** Any replacement sheet containing such amendments must be referred to under item 1 and annexed to this report

7. Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

Statement

Novelty (N)	Claims 1-29	YES
	Claims	NO
Inventive step (IS)	Claims 1-21, 23-29	YES
	Claims 22	NO
Industrial applicability (IA)	Claims 1-29	YES
	Claims	NO

2. Citations and explanations (Rule 70.7)

Novelty (N) Inventive Step (IS) Claims 1-21, 23-26

- EP 330565
- EP 618037
- US 5906760
- US 5922225

All of the above disclose a laser cutting apparatus having the facility to entrain byproducts produced by the cutting process and remove them from the cutting site.

For example, US 5906760 shows a laser cutting apparatus having a top surface for the sheet to be positioned thereon (vacuum table 14), a gantry with a carriage mounted on it (see Fig 1), a laser head (18) mounted on the carriage, an enclosure member (27) and a suction opening positioned beneath the nozzle (15) for entraining substantial byproducts produced during the cutting of the sheet material.

None of the documents however disclose an arrangement where the material is lifted off the top surface of the bed as the laser cuts that particular area of material. This is sufficient to confer novelty and the above claims thus meet the requirements of novelty and inventive step.

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Supplemental Box

(To be used when the space in any of the preceding boxes is not sufficient)

Continuation of Box V**Inventive Step (IS) Claims 27-29**

- DE 229382
- US 4607582
- JP 11-199106

All of the above disclose a gripping device for a cutting apparatus that has a flat bed. For example, US 4607582 discloses a gripping device for intermittently feeding cloth that has a gripping device (50) comprising an upper plate member (54) and lower plate (52) and which can be moved along the table to a pickup position.

However none of the above documents specifically disclose an arrangement where a cut edged portion of a sheet is gripped by a jaw that runs along the flat bed which supports the sheet. The above claims thus are inventive in light of the cited documents.

Inventive Step (IS) Claim 22

- JP 2002 060234
- DE 20106921

Both of the above documents disclose a laser cutting apparatus with a crease wheel. For example, DE 20106921 discloses a laser cutting apparatus with a flat bed (1) onto which the material is laid out, a gantry (2) with a carriage (4) to move along the table, a laser head (see text) and a crease wheel ('grooving tool') for forming crease lines.

The cited document differs in that it does not teach a roll holder or fabric gripping means, but it is considered that the attachment of such is simply to allow the device to be used as a continuous rather than discrete processor (both well known) and so is well within the skills of a non inventive worker. Consequently, the invention defined by claim 22 does not comprise an inventive step over the cited documents.